

REMARKS

As has been discussed previously, applicant truly believes that the final rejection contained in the Office Action was premature and, hence, a full and complete proposed response to that paper is included herein.

However, if it determined that the final rejection was proper, then this paper should be considered to be an amendment-after-final and the amendments entered as-submitted, as the intent of such amendments is to put the claims in condition for allowance.

COMMENTS RE EXAMINER'S "RESPONSE TO ARGUMENTS"

In reply to the Examiner's comments contained in the "Response to Argument" section of the Office Action, it should be noted for the record that applicant challenges the motivation supplied by the Examiner in support of the cited combination. That is, the Examiner suggests that the motivation for utilizing a scan line for data transmission rather than the vertical blanking interval ("VBI") is "in order to take advantage of the known higher bandwidth available in a regular TV channel spectrum as opposed to merely using the VBI."

However, this motivation is just not applicable to this aspect of the inventor's invention. As is made clear in each of the elected claims, the data that is transmitted is a list of "permitted channel numbers", which might amount to perhaps a few hundred integers in the most extreme case, together with a "security key" which in the preferred embodiment is 8 bits (one byte). In view of the very modest amount of data that needs to be transmitted by the claimed embodiment of the instant invention, bandwidth is never an issue and the Examiner's suggestion that

“increased bandwidth” is the motivation for embedding binary values in the actual video scan lines is to suggest the solution of a problem that is not present in this aspect of applicant’s invention.

Further, as Wagner would be applied to the applicant’s invention, there would *not* be an enormous increase in bandwidth. More particularly, it has always been an object of the instant invention that the data that is transmitted – be it a permitted channel number, security codes, etc. – is intended to not disturb the broadcast video signal. See, for example, the reference in the instant specification to the use of the first 15 scan lines for data transmission (e.g., page 28, lines 12-19), the intent being that data can be transmitted along with the existing video signal. Further, Claim 17 of the instant invention requires the selection of a scan line of a *video signal*. This is not what Wagner suggests. Wagner teaches the preemption of entire video channels for purposes of data transmission (see, e.g., column 6 at lines 52-60, where he talks about using “vacant” channels and the absence of video from the chosen channel). The *only* suggestion that applicant has located in Wagner for transmitting data within an in-use video channel are transmission during HBI or via data subcarrier (column 6, lines 63-66), both of which are methods that are clearly distinguishable from those practiced and claimed by the instant inventor. Wagner also suggests (column 3, lines 46-61) the use of modified video equipment, but such would be outside the scope of the applicant’s invention if such did not include transmission of some video conventional scan lines.

Thus, it is believed that the Examiner's proffered motivation for the combination suggested is inapplicable to the instant invention and, as a consequence, applicant's arguments offered previously carry forward with full force.

AMENDMENTS TO THE CLAIMS

Claims 17, 22, 30, and 37 have been amended to set out more clearly the invention that applicant claims as his own. In more particular, it is made clear that applicant's invention modifies a standard video image or images to embed a listing of one or more permitted channels and/or security keys therein. A primary focus of the instant invention is its ability to work within current and projected video transmission standards and this intent clearly set out in the specification in several locations, but it is discussed with some specificity at page 14 line, 14 through page 15, line 10, wherein the impact of standards – both domestic and foreign – are discussed. As a consequence, the amendments offered above do not constitute new matter.

CLAIM OBJECTIONS AND REJECTIONS

Rejections under 35 U.S.C. 103(a)

Paragraph 3

According to Paragraph 3 of the Office Action, Claim 17 stands as rejected under 35 USC 103(a) as being unpatentable over Perlman (USPN 6,125,259), in view of Collings (USPN 5,838,402) and Wagner (USPN 5,761,602). It is said that, considering claim 17 as-amended, it reads on the operation of the video blocking apparatus set-top convert 507 STC as shown in Figure 4 of Perlman, which is further said to be provided with a changeable list of permitted

video channel numbers in a remote-end RM (remote module). It is further said that a user is allowed to choose a list of channels that are permitted to be viewed and that TV signals are delivered from the STC 507 to the TV set via a baseband signal. The claimed means for changing the first tuner to receive a different video channel is said to be necessarily included in Perlman. It is still further said that the claimed CPU that senses the tuner and determines whether a selected channel is in the changeable list is met by microprocessor 301 of Perlman. The ability to display a graphic when a non-permitted channel is selected is said to be taught by Collings. It is said that it would have been obvious to modify Perlman with the technique of switching to a graphic image as taught by Collings.

Finally, it is said that, with respect to the amended claim feature of having a changeable list of video channel numbers that is transmitted within at least one scan line of a video signal, the Perlman reference teaches that EPG (electronic programming guide) data may be transmitted on an out-of-band channel (col. 6, lines 49-65) and that this reference, taken in combination with Wagner's teaching (col. 3, lines 45-60 and col. 6, lines 52-64) that at least a portion of a full video channel can be used to transmit data, provides this limitation.

Thus, the Examiner has rejected the instant case, asserting that it would be obvious for one of ordinary skill in the art to modify the combination of Perlman / Collings with the technique of transmitting data over at least one scan line as taught by Wagner, with the further claimed feature of extracting from the scan line the embedded portion of the changeable list of permitted channels taught by Perlman & Wagner.

In speaking of rejections under Section 103, the Federal Circuit has always required that the examiner provide a suggestion or motivation for the applicants' invention from disclosures found *in the prior art* to justify an allegation of obviousness. "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification". *In re Fritch*, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992). *Accord: In re Fritch*, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992)

It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." (quoting *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988)).

(Emphasis added). *Accord: W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984):

To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, **is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.**

Applicant believes that hindsight reconstruction has been used to reject the instant invention. Recall that the instant patent concerns control from the head-end of channels that can be viewed on a remote module (RM). Further, a key aspect of this control is implemented by transmitting a list of permitted channels to the remote module by embedding the list in a standard

video scan line of a video signal. Note that *none* of the patents cited by the examiner is concerned with applicant's particular problem.

1. Perlman teaches a channel controller that can be used *by an end user* to block certain specific shows or channels. Guide materials that describe each television program are received "over a predetermined out-of-band channel" (column 9, lines 25-29). Viewing criteria established by the end user are used to interpret which programs are viewable based on the guide materials. Permitted television channels are *not* transmitted from the head-end but may be compiled in the RM as a computational convenience based on the user-established criteria.

Perlman further teaches the use of a scrambler module 309 which receives authorization codes (permitted channels) from a head-end via a predetermined out-out-band channel (col. 8, lines 25-29), not via instructions embedded in a scan line from a standard video broadcast.
2. Collings teaches a method / apparatus for *allowing an end user* to selectively block certain television programming. Data packets that describe the programming are transmitted in the Extended Data Services ("XDS") portion of a video signal during the video-blanking interval – not via instructions embedded in a standard video scan line. (Column 4, lines 16-20) Viewing criteria established by the end user are used to interpret which programs are viewable based on the data packets (i.e., "guide") materials.
3. Wagner teaches a large-scale high-bandwidth hybrid data transmission system that relates to providing a telephone/multi-channel-television and/or FM broadcast transmission

system for information distribution, datacasting, and interactive data communications.

(Column 1, lines 6-11). Wagner has *nothing whatsoever* to do with blocking or permitting the viewing of video from the head-end. Further, Wagner only teaches transmitting data over video by using the VBI, using the HBI (horizontal blanking interval) using a data subcarrier, usurping an entire channel, or using a “partial TV channel” (col. 3, lines 47-61, and col. 6, lines – not via information embedded in a standard scan line of a video signal. Wagner never suggests that data be inserted into a scan line which is part of a standard broadcast signal as applicant has suggested. The instances that applicant found where Wagner suggested that data could be “inserted into a raster scan lines of a normal television signal” were immediately explained as being transmitted “either in the vertical blanking interval (VBI), or by using a data subcarrier or by other multiplexing means”, *not* as part of the scan line itself as applicant has required (e.g., Wagner col. 3, lines 54-58, and, col. 5, lines 23-30).

In summary, none of the references above teach transmitting a list of permitted channels *embedded* within at least one scan line. Nor is there a suggestion or teaching in any of the cited references that data (of any kind) can or should be inserted *into an individual scan line* – that is part of a standard video broadcast signal – for use by a remote module, much less a suggestion or teaching that a list of permitted channels might be so inserted.

Further, applicant believes that the examiner has used the instant application as template or blueprint and has impermissibly reconstructed it by piecing together unrelated prior art references in a piecemeal fashion. In applicant's view, the Examiner has failed to satisfactorily

explain why the person of ordinary skill in the art who was seeking to solve the problem posed by the instant inventor, would look outside of Perlman / Collings to find a method of transmitting data that did *not* utilize the VBI / HBI, or a separate data channel, all of which were taught in these references. As has been discussed previously, the stated rationale "increased bandwidth" is inapplicable in applicant's case, as only a few hundred bytes would normally be transmitted. This minimal amount of data does *not* merit the high-bandwidth solution posed by Wagner and, in any case, Wagner does not teach the method of data transmission used by applicant.

Thus, in applicant's view, the Examiner has impermissibly used hindsight to reconstruct applicant's invention and, as a consequence, it is believed that rejection under 35 USC 103(a) of Claim 17 is inappropriate and should be withdrawn.

Paragraph 4

With respect to Examiner's Paragraph 4, Claims 22, and 28-39 stand as rejected under 35 USC 103(a) as being unpatentable over Perlman, Collings & Wagner, and further in view of Sprague (USPN 5,247,757). It is said that the combination Perlman and Collings teaches transmitting authorization codes to a user premise, enabling reception of certain channels / programming. It is further said that Sprague, which is said to be directed to transmitting authorization data to subscribers in a video distribution system, teaches each user maintaining a unique key code that enables decoding of authorized material addressed to the subscriber (col. 9, lines 40-54). In order to decode appropriate authorization data, it is said that the terminal's encryption/decryption key code is compared with authorization data within the transmitted access

control data. It is said that it would have been obvious for one of ordinary skill in the art to modify Perlman and Collings with individual security codes for each terminal.

It is further said that Sprague also teaches that security data and authorization data may be transmitted within the VBI of a TV signal and comparing a security key extracted from the VBI. Wagner is said to provide the teaching that data which is generally transmitted using the VBI of a video signal may, optionally, be delivered on the main video channel spectrum.

It is further said that, with respect to the claimed feature of identifying at least one of a plurality of RMs for receiving a changed list of permitted video, the recited figure reads on the disclosure of Perlman that the user's terminal's scrambler module 309 receives authorization status codes of all channels that *are receivable* (emphasis in Office Action) by the user terminal. These codes are said to define, "i.e. list the channels" that are permitted for viewing by each individual subscriber.

It is further said that, regarding the claimed feature of transmitting the changed list of programs over predetermined scan lines, Official Notice is taken (and accepted by applicant) that at this time it was known to detect any particular scan line of a video image. It is further said that it would thus have been obvious to operate the combination of references in a manner in which the first scan line of the video signal is detected, at least as a way to synchronize the reception of embedded data.

Finally, it is further said that the claimed feature of determining whether a newly selected channel is among the list of permitted channels and, if so, displaying it, is met by the operation of Perlman (col. 10, lines 12-48).

General Comments

As an initial matter, applicant must reiterate the Federal Circuit's prohibition against choosing references piecemeal from the prior and reconstructing applicant's invention with the benefit of hindsight. Consider, for example, the following passage from the unpublished case of *In re Blamer*, Civ. App. No. 93-1108, slip op. at 3-4 (Fed. Cir. Sept. 21, 1993):

The examiner concluded that applicant's invention would have been obvious in light of twelve references. **The Board correctly stated that the examiner's reliance on so many references was "overkill" and concluded that applicant's invention would have been obvious in light of four of the references.** We agree with the Board on the former statement, but **disagree with the latter.** What both the examiner and Board have done is to cite a number of references variously containing some of the limitations in applicant's claims. However, **these references and the limitations for which they were cited were combined piecemeal without any suggestion or motivation for their combination and without regard to the purpose of applicant's invention. . . .**

Emphasis added.

For all of the reasons offered in connection with applicant's response to Paragraph 3 above, it is similarly believed that a rejection based on Perlman / Collins / Wagner combination is inappropriate. Given that the previous combination of three references is inappropriate, it is further inappropriate to add a fourth reference, Sprague, to match the claimed feature of that each RM might have its own authorization key.

By way of explanation, Sprague does *not* address the problem of transmission of permitted video channel numbers to a RM and blocking receipt of non-permitted channels, but instead is exclusively concerned with the transmission of data to a user who has paid to receive that particular information. See the Abstract, column 4 lines 8-12 (charges based on the number

of characters, words, etc.). “The central concept of the present invention is to provide a system (method and apparatus) for distributing information to a user on a pay-per-package basis...” Col. 13, lines 24-29.

It is important to note that Sprague's enabling keys are transmitted exclusively over video *within the VBI* (e.g., col. 9, lines 36-40, col. 19, lines 40-45) unless they are transmitted as an FM sideband. Sprague's invention does not display video information, it only piggybacks encoding data on an existing video (or FM) signal. See, for example, Figure 1 of Sprague, which does not contain a TV receiver (or tuner) or indicate that such would be necessary or desirable for output. The only reference to “video” is in connection with the use of the VBI to transmit encryption information.

Thus, Sprague does *not* teach or suggest embedding a list of permitted video channels within a standard scan line, nor does he teach or suggest enabling or disabling video channels based on the permitted channel list. Sprague's disclosure is unrelated to that of the instant invention except insofar as it teaches the use of security codes that are assigned to individual receiving computers (and not television set top boxes, of course).

Finally, the Examiner does not provide a reason (suggestion or motivation in the prior art) that a person who was skilled in the relevant art would consider the Sprague reference, nor does the examiner indicate why Sprague suggests – where none of the previously cited references have – that the list of permitted channel numbers might be stored within a standard video scan line, as opposed to the universally accepted method of embedding information outside of the traditional video signal (e.g., in the VBI, HBI, in a separate video channel, an FM side band, etc.).

As a consequence, and as has been indicated previously, the further combination of Sprague with the improper combination of Perlman / Collins / Wagner is similarly improper and, as a consequence, rejection of any of the applicant's claims based on this combination should be withdrawn.

Rejection of Claims 22, 28, and 37

Claims 22, 28, and 37 stand as rejected under 35 USC 103(a). For all of the reasons identified above, applicant believes that rejection of these claims is inappropriate and should be withdrawn. None of these references – individually or in combination – suggest the embedding within a video scan line of a list of permitted video channels. The assertion (page 7 of the Office Action) by the Examiner that Wagner's use of the video band for data transmission necessarily implies that he embeds permitted channel numbers within a standard video scan line in the sense of applicant is just not true: Wagner never teaches or suggests the use of embedded information within a standard scan line. To say it still another way, the fact that Wagner may deliver data via the "video channel spectrum" does not imply that he does so by embedding information within a conventional scan line as applicant has done.

As a consequence, and in light of the discussion presented above, it is believed that rejection of these claims is inappropriate and should be withdrawn.

Rejection of Claim 29

Claim 29 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim is inappropriate and should be withdrawn. Further, applicant would vigorously dispute the

Examiner's assertion that "the claimed non-visible scan line reads on the VBI disclosed in Sprague." Of course, there is a clear distinction between the VBI and the scan line itself, as is well known to those of ordinary skill in the art. Applicant's embedding within the a standard video scan line of a list of permitted video channels does not read on Sprague's use of the VBI to transmit authentication information: applicant just transmits his data in a manner that is different from Sprague and from the other art cited by the Examiner.

Rejection of Claim 30

Claim 30 (and perhaps also Claims 17 and 22) stands as rejected under 35 USC 103(a). For all of the reasons identified above, applicant believes that rejection of this claim and/or Claims 17 and 22 is inappropriate and should be withdrawn. None of the cited references teach or suggest the use of an actual standard video scan line – as opposed to the well known technique of sending data during the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

Rejection of Claim 31

Claim 31 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim is inappropriate and should be withdrawn. None of the cited references teach or suggest the use of a standard video scan line – as opposed to the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

Rejection of Claim 32

Claim 32 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim is inappropriate and should be withdrawn. In brief, none of the references cited by the Examiner teach or suggest the use of a standard video scan line – as opposed to the time that is available during the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

Rejection of Claim 33

Claim 33 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim is inappropriate and should be withdrawn. None of the cited references teach or suggest the use of an actual scan line – as opposed to the time that is available during the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

Rejection of Claims 34 and 36

Claim 34 and 36 stand as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which these claims depend, applicant believes that rejection of this claim is inappropriate and should be withdrawn. None of the cited references teach or suggest the use of an actual standard video scan line – as opposed to the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

Rejection of Claim 35

Claim 35 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim is inappropriate and should be withdrawn. None of the cited references teach or suggest the use of a standard scan line – as opposed to the time during the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

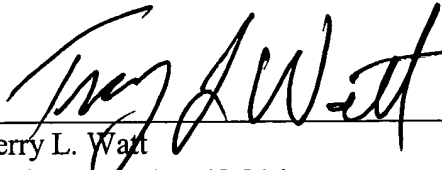
Rejection of Claim 38

Claim 38 stands as rejected under 35 USC 103(a). For all of the reasons identified above in connection with claims from which this claim depends, applicant believes that rejection of this claim is inappropriate and should be withdrawn. None of the cited references teach or suggest the use of an actual standard video scan line – as opposed to the VBI, HBI, etc. – for the storage and transmission of a list of permitted channel numbers.

* * *

In view of the foregoing, it is submitted that the claims as-amended herein are in condition for allowance. Early and favorable action is, therefore, earnestly solicited.

Respectfully submitted,

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AMENDMENT TRANSMITTAL LETTER
Under Small Entity Status

Attorney Docket No: VALENZ-
98-275

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2700

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|--|---------------------------|------------------------------|-------------------|
| Application Serial Number: 09/098,997 | Filing Date: 6/17/1998 | Examiner: RUEBEN M. BROWN | Art Unit: 2611 |
|--|---------------------------|------------------------------|-------------------|

Invention: SYSTEM FOR BI-DIRECTIONAL VOICE AND DATA COMMUNICATIONS OVER A VIDEO DISTRIBUTION NETWORK

TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith is an amendment in the above-identified application. The fee has been calculated as shown below.

CLAIMS AS AMENDED

| | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST NUMBER PREVIOUSLY PAID FOR | NO. OF EXTRA CLAIMS PRESENT | RATE | ADDITIONAL FEE |
|---------------|-------------------------------------|-------|--|--------------------------------|------|-------------------|
| TOTAL CLAIMS | 14 | MINUS | 27 | 0 | \$9 | \$0 |
| INDEP. CLAIMS | 2 | MINUS | 11 | 0 | \$43 | \$0 |

____ Petition is hereby made under 37 CFR 1.136(a) to extend the time for response to the Office Action of 2/20/2004 to and through _____, comprising an extension of the shortened statutory period of:

____ one month (\$55.00) ____ three months (\$475.00)
____ two months (\$210.00) ____ four months (\$740.00)

TOTAL ADDITIONAL FEE FOR THIS AMENDMENT

-0-

____ Small entity status of this application under 37 CFR 1.9 and 1.27 has been established by a verified statement previously submitted.

____ A verified statement to establish small entity status under 37 CFR 1.9 and 1.27 is enclosed.

____ A check in the amount of \$_____ is attached.

____ Charge \$_____ to Deposit Account _____.

X No additional fee is required.

4/20/2004

Date

Terry L. Watt
Reg. No. 42214

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APR 23 2004

Technology Center 2600

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or the correspondence is being facsimile transmitted to the USPTO, on 4/20/2004.

Carol Welch